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Energy and Technology Committee

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**SB 1 - An Act Concerning Energy Policy and Finance**

NRG is pleased to provide the following comments on draft bill SB - 1 - An Act Concerning Energy Policy and Finance. My name is Jon Gordon, Manager – External Affairs for NRG Energy, Inc. NRG is a competitive wholesale generator in Connecticut with power plants located in Montville, Middletown, Norwalk, Devon, Cos Cob, Torrington, and Branford. We operate nearly 2,000 MW in Connecticut, enough power to serve nearly 1/3 of the state or over 1.4 million households.

NRG is deeply concerned about the current economic climate and the additional burden high electricity prices place on all consumers in Connecticut and NRG supports the goals of SB-1 and offers the following suggestions for refinement:

**NRG opposes the proposed redefinition of Class I Renewable Resources in the RPS**

Section 8 (a)(26) and (a)(44) propose changes to the definition of Class I and Class III of the state's Renewable Portfolio Standard (RPS), in effect allowing large-scale imported hydro resources to qualify as a Class I RPS resource in Connecticut. Such a change will have a dramatic effect on the economy, the electric resource mix and the renewable energy marketplace

in Connecticut, and as such, changes to the RPS should be made as part of comprehensive energy plan for Connecticut like the Integrated Resource Plan called for in Sections 48 and 49 of SB-1. Further, the Connecticut Energy Advisory Board ("CEAB") has commissioned a detailed study of the RPS in Connecticut which will make recommendations for change to the Connecticut RPS. Absent such a study, the full implications of such a dramatic change creates significant uncertainty, and it would clearly be appropriate to have the benefit of the CEAB study or a similar study before implementing comprehensive changes to the Connecticut RPS.

Allowing imported Canadian Hydro to qualify as a class I RPS resource will certainly have a devastating impact on in-state Connecticut generating and renewable resources that will have a ripple effect on the Connecticut economy in terms of jobs, investment, taxes, and local benefits, and will make Connecticut more dependent on out of State and out of Country resources for our power supply. These out of State resources will replace existing Connecticut resources and jobs with generation resources over which Connecticut will have no control.

**NRG supports long-term power purchase contracts from Class I renewable energy source projects located in Connecticut**

NRG supports Section 52 (j) (2) that calls for DEEP approval one or more long-term power purchase contracts from Class I renewable energy source projects located in Connecticut. The language in Section 52 (j) (2) should be clarified however to make it clear that *all* Connecticut based renewable projects will be eligible to participate in the new renewable RFP process, not just projects that participated in earlier rounds of the Project 150 RFP. This is critical to ensure that the lowest cost renewable projects are able to compete on a level playing field in a new RFP, so ratepayers can benefit from the latest renewable projects and technologies

available. Clarification regarding what happens to project 150 contracts currently held by entities who may also choose to participate in the new RFP process should be specified, so as to not have the 150 MW cap shut out new and potentially lower cost projects.

NRG's Montville biomass repowering retrofit project may be the best example of a project that should be eligible to participate in the new RFP called for in Section 52 (j) (2). This new project was not a participant in earlier rounds of project 150, and thus has not applied for or received funding from the Renewable Energy Investment Fund. NRG's existing 500MW Montville station is currently fueled by oil and natural gas. The Montville Biomass repowering is a fully permitted project to convert the existing 81MW steam boiler at Montville station to operations with clean, greenwood biomass at up to 40MW baseload, with capability to operate up to 81MW on natural gas or ultra-low sulfur distillate when needed for reliability. Once a contract for output is secured construction could begin at Montville within 90 days. The project creates 150 direct construction jobs and will support 40 direct full-time jobs once operational. Additionally, On-going operations will support 160 full-time local jobs in the forestry and related industries supplying fuel to the plant. As a class 1 resource, the biomass plant contributes to satisfying the state's RPS goals with in-state investment and jobs. In addition to providing clean, renewable energy to Connecticut residents, NRG will obtain the green wood and whole tree chip biomass from nearby foresters and saw mills, which will provide economic benefits to the region while reducing reliance on imported fossil fuels and reducing dependence on natural gas fuel sources. Further, the biomass project provides critically needed economic benefits by ensuring the ongoing viability of Montville Station as a power generation site and as an employer in Montville. The project will allow NRG to maintain employment levels at Montville station and will provide incremental property tax revenues to the Town.

**NRG supports the DEEP review of the benefits of repowering:**

NRG is pleased that SB -1 seeks to specifically address aging electric generation infrastructure, and provide for a smooth transition to efficient, lower emitting in-state generation infrastructure, that effectively utilizes existing interconnected and permitted generating sites in the state. There has been a resounding and nearly unanimous support by key policy making groups to further explore the potential benefits of repowering. Recent studies by ISO New England, including one commissioned by the governors of the six New England states, show that a strategy of replacing the existing fossil steam resources in the region with new natural gas-fueled combined cycle resources will produce substantial economic and environmental benefits as compared to even very aggressive development of demand resources or renewable generation.

Governor Malloy in his energy policy recommendations issued on January 10, 2011 also recognized the importance of addressing aging energy infrastructure, and included recommendations addressing aging infrastructure and how that infrastructure will be replaced. Malloy's energy policy group indentified over ½ of Connecticut's electricity generation as being over 35 years old, and recommended that action be taken. The Governor's working group went on to say that:

> "Older [generating] units are significantly less efficient than newer ones. In addition, the cost of replacement must be managed carefully. Replacement of old generation units may reduce the costs of environmental compliance."
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> "... much of Connecticut's traditional electric generating infrastructure is aging, and Connecticut does not have a solid policy as to how it will replace that aging infrastructure. Approximately 53% (3,000 MW) of Connecticut's fossil-fueled generation is over 35 years old, and approximately 30% of Connecticut's fossil fueled generation is over 40 years old (1,700 MW). Unsurprisingly, it is anticipated that Connecticut has over 2,000 MW of aging generation capacity that is nearing the end of its useful life and is slated to be retired. To date, the debate about aging infrastructure has largely focused on system reliability, i.e., does Connecticut have enough assets in place for its electricity

needs? The reality of this aging generation fleet is that Connecticut may now also have an opportunity to replace aging existing units with newer, more efficient units. This also creates an opportunity to position Connecticut to benefit from structural changes in the natural gas market resulting from Northeast shale gas reserves that are expected to provide lower gas prices well into the future. This would cost the ratepayers in the short term, but the efficiencies of the newer plants would result in savings in the long run.

It therefore behooves Connecticut to examine this issue in detail in order to better determine what mix of resources are needed and how best to pay for those assets. In doing so, all options should be examined, both in terms of what has been done in Connecticut as well as what other states are doing or considering. This should be a broad examination of assets, including, but not limited to consideration of repowering, retrofitting, development of new assets and retirement of other assets."

Section 76 of SB -1 calls for The Department of Energy and Environmental Protection ("DEEP") to prepare a study on the potential costs savings and benefits to ratepayers, including, but not limited to, emissions reductions, repowering some or all of the state's coal-fired and oil-fired generation facilities built before 1990. However, the potential benefits of repowering have already been identified in past Integrated Resource Plans ("IRP") and have been advocated for by the Office of Consumer Counsel ("OCC".) Given that the potential for benefits have been clearly identified, and the consensus that the potential economic and environmental benefits from repowering are tangible, it would be more appropriate at this time to have the DEEP conduct an RFP for repowered projects. The next logical step in the energy planning process is to solicit real repowering proposals in a procurement in which the DEEP and all stakeholders could examine the potential benefits from site specific projects along with any risks.

**Broad Agreement Surrounds the Potential Energy Benefits Available from a Repowering Project.**

The Connecticut Energy Advisory Board in its 2010 Comprehensive Plan for the Procurement of Energy Resources stated that, even in the absence of a compelling reliability

need for incremental capacity, new combined cycle gas turbine plants [under a cost of service regime – even if a direct quote, can we leave this out?] can create substantial net customer benefits, primarily from energy markets. At a conceptual level, this proposition was explicitly acknowledged by the Connecticut Attorney General ("AG") and OCC and implicitly by The Connecticut Light and Power Company and The United Illuminating Company in their respective briefs and the IRP submitted by the electric distribution companies to the DPUC in 2010. These parties surely have very different views on the certainty, quantity and timing of the potential benefits from repowering. But the basic proposition that new efficient combined cycle power plants can create economic benefits for electric customers enjoys surprisingly broad acceptance.

A consensus emerged in the 2010 IRP around the potential for repowering projects to deliver energy benefits even in the absence of a current need for incremental capacity. Participants agreed that meaningful analysis of repowering proposals requires examination of actual proposals from potential project sponsors rather than further generic analysis. At this time, only project specific analysis is sufficient to quantify the benefits needed to justify a current procurement, but no procurement can occur currently because – in the absence of a procurement -- the needed project specific analysis cannot been completed. Connecticut can avoid additional study of this issue and escape this logical dead end by proceeding down the following path:

- Commence a repowering procurement now to create a forum in which to evaluate competing projects offered by sponsors prepared to move ahead with a repowering,
- use that proceeding to measure net ratepayer benefits created by each proposal and then
- make a decision to award zero, one or several long term contract(s) to support the project(s).

In Conclusion, NRG supports the DEEP review of the benefits of repowering, however we believe the only way meaningfully accomplish that at this time is through an RFP that will allow a thorough review of real repowering projects and their benefits. At this juncture, all possible analysis on various hypothetical repowering scenarios has been conducted, and all analyses demonstrate the potential for significant economic benefits for ratepayers. The only way to fully determine ratepayer benefits of an orderly repowering is through the full vetting of actual repowering project proposals that can only be solicited through an open and transparent competitive procurement process. Repowering RFP legislation could call for contracts to be awarded only if proposals were found to produce demonstrable ratepayer benefits. By adopting a procurement mechanism which links new resource development to the retirement of existing fossil steam capacity, Connecticut can begin to secure these benefits and to stabilize its future energy supply and costs.

Thank you for the opportunity to provide comments today.